



Mississippi National River
and Recreation Area



Wilderness
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Urban Wilderness Canoe Adventures (UWCA)

Recommended Classroom Activities

The following educational materials are offered as suggested curriculum to reinforce the learning objectives of the UWCA field trip. Pre-trip activities introduce key concepts and sites that teachers and students will encounter on the river. Follow-up activities give teachers and students a chance to review these ideas and express what they have personally experienced.

Journal Project

All students will make a UWCA journal in class before the trip. On the front cover, they will create a collage of their impressions of river nature or what they expect to see on the trip. Collage materials will be supplied by UWCA. The journals will then be used to take notes about their experiences on the trip.

Students will be asked to answer an open-ended question related their river experiences. The students will write their responses in their journals before the trip. They may finish their writing in a follow-up session in class. The intent of this journaling exercise is to allow students to “Live Inside the Questions”, and to analyze what they have learned.

Questions for UWCA Field Trip Journaling

5th Grade Mississippi River Connections: *What are some ways that you are connected to the Mississippi River?*

6th Grade Mississippi River Gorge: *How has this part of the river changed over the last 12,000 years*

7th Grade B'dote: *How does your cultural perspective shape how you relate to nature and to other people?*

8th Grade Global River Futures: *What can you do in your life to help improve the ecosystems of the Mississippi River and the future health of the planet?*

In a follow-up class session, students will complete the back covers of their journals by doing another collage of their post-trip impression. Students may use the materials provided by the UWCA or draw their own images.



5th Grade Field Trip: Mississippi River Connections

5th Grade Pre-trip Lessons and Activities

“A Most Amazing River”

Minnesota Conservation Volunteer Magazine, Young Naturalist

www.mndnr.gov/young_naturalists/mississippi

This publication by the MN DNR is a good introduction to the upper Mississippi River. The illustrated article briefly addresses the natural, historical, and cultural aspects of the Mississippi River in MN. The available teacher’s guide includes vocabulary and reading for content activities as well as suggestions for other Young Naturalist articles of high interest. The *Young Naturalist* website is:

http://www.dnr.state.mn.us/young_naturalists/index.html

Locking Through Interactive

<http://www.nps.gov/miss/forteachers/teacherresources.htm>

Students become the lockmaster, opening and closing gates or valves allowing a boat to pass through a lock. A similar animation is available through the Army Corps of Engineers at <http://www.mvp.usace.army.mil/navigation/default.asp?pageid=166>

5th Grade Post-trip Lessons and Activities

Map the Mississippi River Watershed and the Mississippi River in the Twin Cities

In these two separate activities, students will map the Mississippi watershed from its sources to the Gulf of Mexico to gain a better understanding of watersheds or will map the Mississippi River through the Twin Cities using various resources to find historical and geographic landmarks.

<http://www.nps.gov/miss/forteachers/teacherresources.htm>

6th Grade Field Trip: Mississippi River Gorge

6th Grade Pre-trip Lessons and Activities

(See <http://www.nps.gov/miss/forteachers/teacherresources.htm> or as noted):

- Waterfall on the Move (three parts —describing the geological origins of the gorge; employing science, math and geography)
 - Mississippi River Bluff Strata
 - St. Anthony Falls: 1680-1876
 - Map the Mississippi in the Twin Cities (use resource “Journey of a Waterfall”)
- Sedimentary Layers
- Fossils



- Urban Water Cycle Interactive (online at www.health.state.mn.us/water/urbancycle/)
- Locking Through Interactive (on-line interactive demonstrates how a lock works)
- Vocabulary (sections on geology and navigation, locks, dams, and bridges)
- Reading (select appropriate options)

6th Grade Post-trip Lessons and Activities

(bridge activity and poetry online at

<http://www.nps.gov/miss/forteachers/teacherresources.htm>)

- Bridge Span Activity (build a model bridge from simple materials)
- Poetry (see four forms of poetry to make a poem about your river trip)
- Journal writing (do writing before and after field trip about what know, what you want to learn, and what you did learn about the Mississippi River)
- Art (make a picture to express what you saw or learned on your river trip)
- Map your local watershed (research your local watershed and make a map that shows how water runs from your school to the Mississippi River)
- Non-point source pollution activity, or "Adopt-a-River Virtual Watershed," or "Enviroscape" (model to demonstrate water pollution and how to prevent it – may be checked out from National Park Service via Brian at 651-290-3030, x303)

7th Grade Field Trip: *B'dote*

7th Grade Pre-trip Lessons and Activities

See www.nps.gov/miss/forteachers or other related websites as noted below.

- The historical and cultural interactions between Dakota people and the outsiders who eventually took their lands and exiled them from Minnesota have been documented in many places, but usually from a white perspective. A new website sponsored by the Minnesota Humanities Commission provides a rich collection of Dakota voices and perspective on this interaction. <http://www.bdotememorymap.org/>
- Contrast this with the more traditional white perspective on this history at this Minnesota Historical Society website: <http://discussions.mnhs.org/collections/2008/01/picturing-fort-snelling/>
- *Northern Lights* (first edition text) activities can be conducted from the books provided by the MPS. Additional resources are available at the Minnesota Historical Society site supporting the current edition: <http://content.mnhs.org/education/north-lights>. Closely related to the trip's theme is "Chapter Five: Winter Count." Compare the two sources describing the 1822 strike of a giant meteor at the confluence, a letter by Colonel Snelling and "A Winter Count," by Swift Dog. Make your own winter count. Evaluate the role of



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oral tradition with connections to on-line accounts.

7th Grade Post-trip Lessons and Activities

This field trip presents many opportunities for students to connect to the goals of the Arts for Academic Achievement Program. Because of the complex questions of cultural perspective, justice, and relationships raised by this history, art in various media allows students to spend more time “Living Inside the Questions.”

- Journal writing and poetry: This may be both accounts of their trip experience, but also reflective upon the history and the issues that it raises. A key question to consider: How does your cultural perspective shape how you relate to nature and to other people? Follow up questions can include: Why did Dakota people value the confluence area? Why did the United States Army find this place important? What differences do you notice in how Dakota people speak about this place and their relationship to this history compared to non-Dakota people?
- Map/ Painting comparisons: The extensive documentation of this area provides a wealth of material to compare, contrast, and analyze for evidence of the changes that took place over time. Contrast the presence of the Dakota people in many of the early paintings with the photographs of prisoners from 1862. Note the changes in the landscape over time, including the dredging of a new route for the Minnesota River and cutting of most trees in the area for firewood. Many images and maps are available at the following site: <http://www.mnhs.org/places/sites/hfs/history.html>
- Painting your perspective: After examining other images of the confluence area, students can paint or draw their own image depicting either what they think it looked like in the past, what they think it looks like now, or what they can imagine it looking like in the future.

8th Grade Field Trip: River Confluence

8th Grade Pre-trip Lessons and Activities

(May require Firefox browser)

- Online video module explaining the Mississippi River Dead Zone and its connection to upper Midwest agriculture:
<http://cgee.hamline.edu/flash/MississippiRiver/MissRiverModule.html>
- Online poster for classroom discussion or display: 150 years of agricultural technology in Minnesota:
<http://www.mda.state.mn.us/sitecore/content/Global/MDADocs/kids/sesquitimelina.a>



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8th Grade Post-trip Lessons and Activities

- Watch and discuss “Big Question: Is Earth Past the Tipping Point?” video at <http://www.scientificamerican.com/video.cfm?lineup=1406165298&id=72509495001>
- View the film Food, Inc. or King Corn

Additional Classroom Activities and Learning Resources

Lumber & Sawmill Activities

These reading, math, and social studies activities focus on the historic lumber and sawmill industries of Minneapolis. An illustrated journal describes, through the eyes of a child, the lumber and sawmill activity at St. Anthony Falls in 1917. Writing activities include making a postcard, reading a very short newspaper article about a 1920 lumber mill fire and then writing a newspaper article based on student experience. Math activities include simple calculations and graphing.

<http://www.nps.gov/miss/forteachers/teacherresources.htm>

Forest, Fields and Falls- MHS site

This on-line activity explores the lumber, sawmill, flour mill and farming industries in the early 1900s through audio and cartoon type drawings.

<http://discovery.mnhs.org/ConnectingMN/>

Branching Out- Project WET

Students will build a model landscape to investigate how water flows. This is a fun and easy introductory lesson on the concept of watersheds. This lesson is part of Project WET (Water Education for Teachers). The local Project WET coordinator is April Rust, DNR Division of Waters, 500 Lafayette Road, St. Paul, MN 55155, 651-259-5706,

april.rust@state.mn.us

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Depending on time and student interest, the following activities are among many more activities available at <http://www.nps.gov/miss/forteachers/teacherresources.htm>



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Online Learning: Surf the Mississippi at St. Anthony Falls

Students will explore the Internet to answer a series of questions about the history, geology, and geography of St. Anthony Falls and the Mississippi River in the Twin Cities including early uses of the river system.

Waterfall on the Move

These activities describe the recession of St. Anthony Falls and Mississippi River geology.

Birds, Beaks and Adaptation

The student will learn and describe how different kinds of bird beaks have adapted to feed on different foods within a specific habitat by using simple household tools.

Teaching With Historic Places Lesson Plan: Wheat Farms, Flour Mills, and Railroads Primary sources such as maps and images are used in lessons demonstrating the inter-dependence between flour mills, farming and railroads leading to the growth of the Twin Cities and Midwest.

<http://www.nps.gov/history/nr/twhp/wwwlps/lessons/106wheat/106wheat.htm>

The general story of Dakota/White interactions in Minnesota is recorded in many books and can be considered in the context of treaties and state history as developed in the current *Northern Lights* curriculum and other materials. In addition to this core story, the related stories of the fur trade and river transportation is developed in two additional activities from the *Northern Lights*, First Edition:

- Chapter Seven: "Autobiography of a Canoe" (connects the technology of the canoe to the native inventors and its role in the fur trade.)
- Chapter Eight: "Getting to the Land" (Follow the map of the Zebulon Pike's expedition as you learn how he, and later settlers, used the river systems for transportation.)

Two Twin Cities Public Television Video productions are closely connected: _:

1. Seth Eastman <http://www.pbs.org/ktca/setheastman/>
2. Dakota Exile <http://www.tpt.org/archive/dakota/>

An interesting account of the archaeological work at Mendota is found at the following site:

<http://www.fromsitetostory.org/tcm/21dk0031mendota/21dk0031mendota.asp>